EXHIBIT C

'189 Patent Claim Constructions

Claim	Proper Construction
2. A method according to claim 1, wherein downloading the one or more additional data blocks comprises downloading the blocks from a succession of resolution levels, from the level immediately higher than the resolution level of the first block up to the maximal existent resolution level on the server not above the indicated resolution level.	• **downloading the blocks from a succession of resolution levels** – requesting and receiving (in local memory) data blocks describing three-dimensional terrain from a separate computer in order of successive resolution level. • **level immediately higher than the resolution level of the first block** – the immediately next level of the resolution level hierarchy that has a level of detail per unit area higher than the level of detail per unit area of the first data block describing three-dimensional terrain. • **maximal existent resolution level on the server** – the resolution level stored on the remote server that has the greatest level of detail per unit area.
3. A method of providing data blocks describing three-dimensional terrain to a renderer, the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels, the method comprising:	
receiving from the renderer a plurality of coordinates in the terrain along with indication of a respective resolution level; said plurality of coordinates being included in a plurality of respective distinct blocks;	• **receiving from the renderer a plurality of coordinates in the terrain along with indication of a respective resolution level** – an object other than the renderer, receiving from the renderer more than one set of coordinates in the terrain along with a single indication of a respective resolution level. • **plurality of coordinates being included in a plurality of respective distinct blocks** – each one of the plural sets of coordinates being included in a separate distinct one of a plurality of data blocks describing three-dimensional terrain.
providing the renderer with first data block which includes data corresponding to at least some of the plurality of coordinates from a local memory;	• **data corresponding to at least some of the plurality of coordinates** – first data block describing three-dimensional terrain corresponding to one or more of the sets of coordinates received from the renderer. • **providing the renderer with first data block which includes data corresponding to at least some of the plurality of coordinates from a local memory** – an object other than the renderer providing to the renderer from a local memory a first data block describing three-dimensional terrain corresponding to at least one set of coordinates received from the renderer.
downloading from a remote server one or more additional blocks which include data corresponding to a plurality of respective distinct blocks if the provided block from the local memory is not at	• This step uses the term "a plurality of respective distinct blocks" rather than "the plurality of respective distinct blocks," which is believed not to be what the patentee intended. To the extent that the patentee intended to refer to "the plurality of respective distinct blocks," however, Defendants provide the following construction. • **data corresponding to a plurality of respective distinct blocks** – data that is included in the plurality of multiple data blocks describing three-dimensional terrain corresponding to one or more of the sets of coordinates provided by the

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the indicated resolution level, wherein blocks of lower resolution levels are downloaded before blocks of higher resolution levels.	renderer. • **downloading from a remote server one or more additional data blocks which include data corresponding to a plurality of respective distinct blocks if the provided block from the local memory is not at the indicated resolution level** – an object other than the renderer requesting and receiving one or more additional data blocks describing three-dimensional terrain corresponding to the one or more sets of provided coordinates from a separate computer, and placing the additional data blocks describing three-dimensional terrain in local memory; all of the aforementioned being based on a determination of whether the first data block describing three-dimensional terrain already in the local memory is not of the indicated level of detail per unit area received from the renderer. • **wherein blocks of lower resolution levels are downloaded before blocks of higher resolution levels** – data blocks describing three-dimensional terrain corresponding to the one or more sets of coordinates provided by the renderer that are at a lower level of detail per unit area are requested over a network and received in local memory by the local computer from the separate computer, before data blocks describing three-dimensional terrain corresponding to the one or more sets of provided coordinates that are at a higher level of detail per unit area are requested over a network and received in local memory by the local computer.
7. A method of providing data blocks describing three-dimensional terrain to a renderer, the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels, the method comprising:	• This claim uses the term "remoter server" rather than "remote server," which is believed not to be what the patentee intended. To the extent that the patentee intended to refer to a "remote server," however, Defendants provide the following construction.
receiving from the renderer one or more coordinates in the terrain along with indication of a respective resolution level;	
providing the renderer with a first data block which includes data corresponding to the one or more coordinates, from a local memory;	
downloading from a remoter server one or more additional data blocks which include data corresponding to the one or more coordinates if the provided block from the local memory is not at the indicated resolution level;	• **downloading from a remoter server one or more additional data blocks which include data corresponding to the one or more coordinates if the provided block from the local memory is not at the indicated resolution level** – an object other than the renderer requesting over a network and receiving in local memory from a separate computer one or more additional data blocks describing three-dimensional terrain corresponding to the one or more sets of coordinates provided by the renderer; all of the aforementioned being based on a determination of whether the first data block describing three-dimensional terrain already in the local memory is not of the indicated level of detail per unit area received from the renderer.

Claim	Proper Construction
and downloading from a remote server excess blocks not currently needed by the renderer to fill up the local memory when not downloading blocks required by the renderer.	• **excess blocks not currently needed by the renderer** – data blocks describing three-dimensional terrain other than the data blocks describing three-dimensional terrain corresponding to coordinates provided by the renderer. • **fill up the local memory** – add to the local memory until the local memory is filled. • **when not downloading blocks required by the renderer** – during periods of time when the local computer is not downloading data blocks describing three-dimensional terrain corresponding to coordinates provided by the renderer. • **downloading from a remote server excess blocks not currently needed by the renderer to fill up the local memory when not downloading blocks required by the renderer** – an object other than the renderer requesting over a network and receiving in local memory from a separate computer data blocks describing three-dimensional terrain being blocks other than the data blocks describing three-dimensional terrain corresponding to coordinates provided by the renderer, until the local memory is filled, during periods of time when the local computer is not downloading data blocks describing three-dimensional terrain corresponding to coordinates provided by the renderer.
8. A method according to claim 7, wherein downloading the data blocks comprised downloading the blocks via the Internet.	• **Internet** – a network capable of relaying information via Internet Protocol, either alone or in connection with one or more other protocols.
9. A method according to claim 7, wherein the renderer renders a view from a current viewpoint, and wherein downloading the excess blocks comprises filling the local memory with substantially all of the blocks surrounding a point in the terrain seen from the current viewpoint within a predetermined distance range.	• **renders a view** – displays an image of terrain from the current viewpoint. • **filling the local memory** – adding to local memory until the local memory is filled. • **substantially all of the blocks surrounding a point in the terrain seen from the current viewpoint within a predetermined distance range** – substantially all the excess data blocks describing three-dimensional terrain on all sides out to a pre-established distance boundary around a point in the terrain that is seen from the current viewpoint.
11. A method according to claim 9, wherein filling the local memory comprises filling the memory with substantially all the blocks within the range from a lower resolution level before downloading blocks of higher resolution levels.	• **filling the local memory** – same construction of this term as in claim 9.
13. Apparatus for providing data blocks describing three-	• This claim uses the term "render" rather than "renderer," which is nonsensical. To the extent that the patentee intended to refer to a "renderer", however,

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dimensional terrain to a render, the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels, the apparatus comprising:	Defendants provide the following construction.
a local memory which stores data blocks corresponding to coordinates proximal to a current viewpoint of the renderer;	
a communication link, through which the memory receives the data blocks from a remote server;	
a processor which receives one or more specified coordinates along with indication of a respective resolution level from a renderer, provides the renderer with a first data block which includes data corresponding to the one or more specified coordinates from a local memory, and downloads over the communication link blocks from the resolution level of the first block up to a maximal resolution level of blocks stored on the server that is not above the indicated resolution level which include data corresponding to the one or more coordinates if the first block is not from the indicated level.	• **downloads over the communication link blocks from the resolution level of the first block up to a maximal resolution level of blocks stored on the server that is not above the indicated resolution level which include data corresponding to the one or more coordinates if the first block is not from the indicated level** – requests over the communication link and receives in local memory from a separate computer one or more additional data blocks describing three-dimensional terrain corresponding to the one or more sets of coordinates provided by the renderer, the additional data blocks describing three-dimensional terrain each having a resolution level equal to or higher than the resolution level of the first data block describing three-dimensional terrain already in the local memory but not exceeding the highest resolution level stored on the remote server nor the resolution level indicated by the renderer; all of the aforementioned being based upon a determination of whether the first data block is not of the indicated level of detail per unit area received from the renderer.
14. Apparatus for providing data blocks describing three-dimensional terrain to a render, the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels, the apparatus comprising:	• This claim uses the term "render" rather than "renderer," which is nonsensical. To the extent that the patentee intended to refer to a "renderer," however, Defendants provide the following construction. • This claim uses the term "one or coordinates" rather than "one or more coordinates," which makes this term nonsensical. To the extent that the patentee intended to refer to "one or more coordinates", however, Defendants provide the following construction.

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a local memory which stores data blocks corresponding to coordinates proximal to a current viewpoint of the renderer;	
a communication link, through which the memory receives the data blocks from a remote server;	
a processor which receives one or more specified coordinates along with indication of a respective resolution level from a renderer, provides the renderer with a first data block which includes data corresponding to the one or more specified coordinates from a local memory, and downloads over the communication link blocks of lower resolution levels before blocks of higher resolution levels which include data corresponding to the one or coordinates if the first block is not from the indicated level.	• **downloads over the communication link blocks of lower resolution levels before blocks of higher resolution levels which include data corresponding to the one or coordinates if the first block is not from the indicated level** – requests over the communication link and receives in local memory from a separate computer additional data blocks describing three-dimensional terrain corresponding to the one or more sets of coordinates provided by the renderer, requesting and receiving in local memory the additional data blocks at a lower level of detail per unit area before requesting and receiving in local memory the additional data blocks at a higher level of detail per unit area; all of the aforementioned being based on a determination of whether the first data block is not of the indicated level of detail per unit area received from the renderer.
16. Apparatus for providing data blocks describing three-dimensional terrain to a render, the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels, the apparatus comprising:	• This claim uses the term "render" rather than "renderer," which is nonsensical. To the extent that the patentee intended to refer to a "renderer," however, Defendants provide the following construction.
a local memory which stores data blocks corresponding to coordinates proximal to a current viewpoint of the renderer;	
a communication link, through which the memory receives the data blocks from a remote server;	

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a processor which receives one or more specified coordinates along with indication of a respective resolution level from a renderer, provides the renderer with a first data block which includes data corresponding to the one or more specified coordinates from a local memory, and downloads over the communication link one or more additional blocks according to the order in which the coordinates were provided which include data corresponding to the one or more coordinates if the first block is not from the indicated level.	• **downloads over the communication link one or more additional blocks according to the order in which the coordinates were provided which include data corresponding to the one or more coordinates if the first block is not from the indicated level** – requests over the communication link and receives in local memory one or more additional data blocks describing three-dimensional terrain corresponding to the one or more sets of coordinates provided by the renderer; the requesting over the communication link and receiving in local memory being done in the order in which the sets of coordinates were provided by the renderer; all of the aforementioned being based on a determination of whether the first data block is not of the indicated level of detail per unit area received from the renderer.
18. Apparatus for providing data blocks describing three-dimensional terrain to a render, the data blocks belonging to a hierarchical structure which includes blocks at a plurality of different resolution levels, the apparatus comprising:	• This claim uses the term "render" rather than "renderer," which is nonsensical. To the extent that the patentee intended to refer to a "renderer," however, Defendants provide the following construction. • This claim uses the term "one or coordinates" rather than "one or more coordinates," which makes this term nonsensical. To the extent that the patentee intended to refer to "one or more coordinates", however, Defendants provide the following construction.
a local memory which stores data blocks corresponding to coordinates proximal to a current viewpoint of the renderer;	
a communication link, through which the memory receives the data blocks from a remote server;	
a processor which receives one or more specified coordinates along with indication of a respective resolution level from a renderer, provides the renderer with a first data block which includes data corresponding to the	• **downloads over the communication link blocks which include data corresponding to the one or coordinates if the first block is not from the indicated level** – requests over the communication link and receives in local memory additional data blocks describing three-dimensional terrain corresponding to the one or more sets of coordinates provided by the renderer; all of the aforementioned being based on a determination of whether the first data block is not of the indicated level of detail per unit area received from the renderer.

Claim	Proper Construction
one or more specified coordinates from a local memory, downloads over the communication link blocks which include data corresponding to the one or coordinates if the first block is not from the indicated level; and	
downloads excess blocks not currently needed by the renderer to fill up the local memory when the processor is not downloading blocks required by the renderer.	• **downloads excess blocks not currently needed by the renderer to fill up the local memory when the processor is not downloading blocks required by the renderer** – requests over a communication link and receives in local memory data blocks describing three-dimensional terrain other than the data blocks describing three-dimensional terrain corresponding to coordinates provided by the renderer, until the local memory is filled, during periods of time when the processor is not downloading data blocks describing three-dimensional terrain corresponding to coordinates provided by the renderer.
19. Apparatus according to claim 18, wherein the renderer renders a view from a current viewpoint and the processor fills the local memory with substantially all the blocks surrounding a point in the terrain seen from the current viewpoint in a predetermined range.	• **renders a view** – same construction of this term as in claim 9. • **fills the local memory** – adds to the local memory until it is filled. • **substantially all the blocks surrounding a point in the terrain seen from the current viewpoint in a predetermined range** – same construction as **"substantially all of the blocks surrounding a point in the terrain seen from the current viewpoint within a predetermined distance range"** in claim 9.
21. Apparatus according to claim 19, wherein the processor fills the local memory with substantially all the blocks from a lower level before downloading blocks of higher resolution levels.	• **fills the local memory** – same construction of this term as in claim 19. • **substantially all the blocks from a lower level before downloading blocks of higher resolution levels** – substantially all of the data blocks describing three-dimensional terrain at a lower level of detail per unit area before requesting over the communication link and receiving in local memory data blocks describing three-dimensional terrain with a higher level of detail per unit area.
22. Apparatus according to claim 18, wherein the communication link comprises a connection to the internet.	• **internet** – same construction as "Internet" in claim 8.